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Promoting High-Growth Entrepreneurship in Peripheral Regions: a Critique of Government Sponsored Venture Capital Funds

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Introduction

The UK's core-periphery economic divide shows no signs of narrowing. Indeed, it is widening (Financial Times, 2015). Evidence shows that second tier cities – many of which are in northern regions – performed worse during the recession than London (Champion and Townsend, 2013) and are now lagging behind London in terms of job creation during the recovery (Townsend and Champion, 2013, Centre for Cities, 2015). So where are the new jobs to come from?

The major thrust of policy in recent decades has been to support people to start new businesses and to help existing small firms to grow. However, the policy focus has now switched to support for high growth firms. This has been for two reasons. First, it has been claimed that subsidising business start-ups has proved to be both costly and ineffective. Shane (2009, p. 158) argues that "there is a lot of evidence that these policies lead people to start marginal businesses that are likely to fail, have little economic impact, and generate little employment." Second, as he goes on to argue, "we need to recognise that only a select few entrepreneurs will create businesses that create jobs, reduce unemployment, make markets more competitive, and enhance economic growth" (Shane, 2008, p.163). There is now considerable evidence (e.g. Henrekson and Johansson, 2010, Anyadike-Danes et al., 2009, Hart and Anyadike-Danes, 2014) that most jobs are created by just a small proportion of high growth firms (HGFs). Hence, as Storey and Greene (2010, p. 208) observe: "there is little doubt that small businesses that become middle-sized and ultimately large businesses, over a comparatively short period of time, are central to economic prosperity.... Ultimately, the ability of a [region or] country to nurture the growth of such businesses is probably the most important element in enterprise development."

The dominant approach of policy makers in peripheral regions to support the emergence of HGFs has been to establish government sponsored venture capital funds (GSVCFs). The rationale is two-fold. First, it reflects the commonly held assumption that venture capital is a key driver for HGFs (which are assumed to be young and operating in a high tech sector) (OECD, 2011, Brown and Mason,

2014). Second, it is a response to the lack of venture capital in peripheral regions. This is an outcome of both the overall decline in the availability of venture capital because the poor returns achieved by fund managers in the post-dotcom era have made it much harder for them to raise new investment funds (Mason, 2009) and the longstanding high level of geographical concentration of venture capital investments (Mason, 2007, Aveitchikova, 2012) that, in a UK context, favours London and the South East (Mason, 2007, Mason and Pierrakis, 2013). Recent official reports identify structural gaps in the availability of equity capital in the £250,000 - £2m range and £2m to £10m range (SQW, 2009; BIS, 2012). Venture capital investments in peripheral regions of the UK are dominated by government sponsored funds either investing on their own or in conjunction with private investors (Mason and Pierrakis, 2013).

At least four generic models of government sponsored venture capital can be recognised. First, it can take the form of an investment fund that is financed by public money and managed by government employees. Second, it can involve professional fund managers being hired or contracted to invest public money. Third are hybrid funds, in which the finance comprises both private and public money, but structured in such a way that the public money takes the first loss and the private sector money takes the first gain, and is managed by professional investors. Fourth are co-investment funds, in which the government sponsored fund invests alongside private sector investors, typically on the same terms and conditions, but in a passive way. The trend over time has been for the government increasingly to operate at arm's length, initially in terms of fund management and now also in terms of using public money to leverage private funds. However, there is growing evidence that regardless of the approach, GSVCFs have been ineffective in stimulating entrepreneurship-led economic development (Nightingale et al., 2009, Brander et al., 2014, Grilli and Murtinu, 2014, Munari and Toshi, 2015).

The remainder of this paper considers why GSVCFs have had such a modest economic impact. First, it questions the operations and investment focus of the funds. It then questions whether there

is sufficient demand for venture capital and whether the demand is investment ready. Finally, it questions whether the build-to-sell approach that is at the core of the venture capital investment model is appropriate as an economic development strategy.

Government sponsored venture capital funds: a critique

Inappropriate investment focus

GSVCFs can be criticised for having an inappropriate investment focus. First, government typically focuses on 'small' investments, often below £1m. This is too small to meet the funding needs of growing firms, especially technology-based firms, and also prevents them from making follow-on investments (SWQ Consulting, 2009). In any case, this sub-£1m investment market is relatively well served by business angels even in peripheral regions, particularly now that they have started to invest as groups often in conjunction with co-investment funds.

Second, most GSVCFs focus on technology sectors, on the implicit assumption that there is a strong association between 'high tech' and high growth firms (Henrekson and Johansson, 2010; Mason and Brown, 2013). However, this assumption is not supported by empirical evidence (Brown and Mason, 2014; Daunfeldt et al., 2015). HGFs are heterogeneous in terms of sector and also size, age and location. The preoccupation of policy-makers with technology sectors is therefore potentially depriving innovative businesses in more traditional sectors that have high growth potential of the opportunity to raise finance.

Third, GSVCFs tend to target new and young businesses. However, research in Scotland noted that a significant minority of high growth firms are either management buyouts (MBOs), management buyins or employee buyouts (Mason et al., 2015). But typically GSVCFs are precluded from investing to buy out existing shareholders. As a consequence these firms are not eligible for investment by these funds. Yet, ownership change, either uniting management with ownership or replacing owner-managers who perhaps wish to retire, are significant mechanisms for triggering growth.

Fourth, GSVCFs schemes are often set up, mimicking the private sector, as limited life (10 year) rather than evergreen funds. This requires them to focus their investment activity on just a few years, after which they are closed to new investments and only make follow-on investments, and then seek to exit by means of a trade sale. The consequence is that the opportunity to nurture and develop larger locally owned businesses is lost.

The Broken Funding Escalator

The funding of a growth business is often a series of steps, starting with family, founder and friends (the 3Fs), moving on to business angel investment, then one or more rounds of venture capital funding, development capital and mezzanine finance and finally an Initial Public Offering (IPO) or the sale of the business. Fast growing companies will rarely raise just one round of funding. However, most funders position themselves to only invest a certain amount per company (e.g. less than £250,000, £250,000 to £500,000, less than £1m, £2m-£5m, over £5m) or invest only in businesses at particular stages in their development (e.g. seed, early growth, development). Business angels lack deep pockets and are unlikely to make follow-on investments. In the case of venture capital funds, some will invest in the £1m to £5m range while others make much bigger investments. Very often they will only invest in companies that are revenue positive. As noted above, GSVCFs organise themselves in the same way, positioning themselves only to make certain sizes of investments and in businesses that have particular characteristics.

This situation creates a number of negative outcomes. First, entrepreneurs of growing businesses have to engage in new efforts to raise finance every nine to twelve months which takes their attention away from managing the business. It also creates considerable insecurity since an unsuccessful attempt at raising finance would constrain future growth and even threaten the survival of the business, thereby putting at risk investments made by previous investors. Second, because each investor is unable to make follow-on investments they are at risk of being diluted in subsequent rounds of investment. Third, the supply of risk capital is skewed to sub-£1m investments, while the shift of venture capital funds to larger, more profitable investments has left a gap in the £1m-£5m funding range (SQW, 2009, BIS, 2012). This creates 'the Series A crunch' with too many companies that have successfully raised smaller amounts of finance now seeking to raise rounds in excess of £1m. Because the supply of these larger investments is so limited many companies might not secure follow-on funding, which increases the possibility of a low-value distress sale. The focus of GSVCFs on small investments therefore does nothing to address the needs of

businesses seeking £1m-£10m to scale-up and internationalise their activities which many commentators regard as the most significant finance gap for HGFs.

Connectivity

This narrowing of the supply pyramid is a national rather than simply a regional problem. However, it presents its most extreme form in peripheral regions. To the extent that the investment process is constrained by distance, this is more significant in the case of small scale early stage investments than larger follow on investments. Indeed, 70% of UK business angels invest locally (Harrison et al., 2010). This reflects the importance of local presence for identifying new businesses that are seeking finance and also the active hands-on involvement of early stage investors, which is facilitated by proximity. Hence regions need to have their own indigenous sources of start-up and early stage finance which will typically be supplied by business angels and seed funds.

The value added contribution of follow-on investors is likely to be in a form that does not require their proximity (e.g. professionalization of the business, strategic insights, networks). Hence, businesses looking for follow-on investments should be seeking potential investors outside of the region. However, such investors place a high emphasis on trusted networks for deal flow and potential co-investors. Peripheral regions therefore need to develop funding 'pipelines' (Bathelt et al., 2004) that link the key players in the regional entrepreneurial eco-system (e.g. universities, incubators, angel groups, local venture capital firms, etc.) to venture capital funds based in London and overseas and to key individuals who can gain access to these investors.

Smart Money

Money is often thought of as being homogeneous, hence, it does not matter who provides the finance for a business. However, for entrepreneurial finance this is not the case. There is a fundamental distinction between 'smart' money, where the investor contributes both finance and non-financial support (e.g. advice, knowledge, contacts), and 'dumb' money where the investor offers nothing above and beyond the money. What is required to build strong entrepreneurial companies is not just any type of money from any source, but smart money supplied by investors who have the skills, knowledge and contacts to be able to add value to the businesses in which they invest.

The question for GSVCFs is whether they add the same level of value-added as private venture capital funds. The evidence points to the conclusion that they are not as 'smart' as private sector venture capital in terms of adding value (Shäfer and Shilder, 2009; Luukkonen et al., 2013). The ability of GSVCFs to

attract capable investment managers is constrained by the small size of funds under management because the annual management fee is based on a percentage of the committed capital (up to 2%), which, in turn, limits the rewards and incentives that they can offer. The capabilities of the managers of GSVCFs are therefore often questioned, both in terms of their ability to make good investments (quality of deal flow, domain knowledge, effectiveness of their due diligence) and to add value to their investee companies (e.g. mentoring skills, strategic insights, networks). These considerations have prompted governments to outsource management to private sector fund managers. But here again, issues of fund size remain relevant. Inconsistent incentives are also a major issue. There is almost inevitably a disconnect between the incentives of the people managing the funds on behalf of the government, which are to maximize returns on capital, and government itself, which seeks to generate economic growth and jobs (Forbes, 2013). On the other hand, Lerner (2009) argues that the problem is that government fails to build in incentives for managers to enhance the performance of the fund's investee companies because they get well-remunerated even if these companies fail.

Demand-side constraints

The creation of GSVCFs assumes that there is a significant pool of potential high growth businesses that can put venture capital to good use to build businesses of scale. However, there is not necessarily a large number of businesses particularly in peripheral regions that either want or need to access venture capital. Even more significantly, peripheral regions are unlikely to contain sufficient businesses that offer the type of returns that venture capital funds seek. Accordingly, without sufficient and appropriate demand, simply creating new sources of finance may not result in a significant increase in high growth businesses.

Venture capital investing is about building companies of scale. It is high risk. Most investee companies do not achieve high growth and many fail. The success of an investment portfolio therefore depends on achieving one or two 'winners', the returns from which will more than compensate for the unsuccessful businesses. Venture capital therefore is – or should be – highly selective. However, the reality is that the vast majority of businesses are not attractive financial propositions. They will not meet the strict investment criteria for venture capital, and never will on account of either their lack of innovative or original ideas or the limited industry and management experience of their entrepreneurial team, or both. This is particularly the case in economically lagging cities and regions where the low level of entrepreneurial activity contributes to their weak economic

position. This means that increasing the supply of finance is likely to have little or no effect on a region's overall business performance. This is confirmed by one study which found that the companies that were recipients of funding under one or more of six UK government-backed hybrid venture capital schemes did not exhibit significantly better performance, suggesting "that the UK does not possess untapped resource of high potential firms whose (greater) performance will be unleashed by simply making available more equity finance within the 'equity gap'" (Nightingale et al., 2009).

In summary, the number of companies that have the potential to achieve sufficient growth to deliver the scale of returns sought by venture capital is limited, especially in peripheral regions. The danger is therefore that having created a venture capital fund, the pressure to invest will cause the money to go to poorer quality businesses which do not have the potential to grow to a significant scale. This problem will be especially acute if the fund's ability to invest is geographically circumscribed. This, in turn, will produce poorer outcomes - few growing businesses will emerge and few new jobs will be created. Research that has noted that GSVCFs have greater difficulty in achieving exits (Brander et al., 2014) is consistent with this scenario. The lack of exits, the small size of those exits that occur and the lack of large exits will all adversely affect the fund's financial returns as well as limiting entrepreneurial recycling possibilities. This leads to the conclusion that creating GSVCFs will not have as great an impact on economic development as is often assumed.

Investment Readiness

A further problem on the demand side is that many of the businesses which do come forward to seek venture capital are judged by investors as not being 'investment ready'. These are businesses that investors intuitively recognise as having potential but require significant additional development to get to the point where they could attract finance. They comprise, at one extreme, businesses which have presentational failings, typically incomplete information and, at the other extreme, businesses lacking the skills and composition of their management team, route to market, and status of their IP or governance arrangements.

There have been various attempts to deliver investment readiness schemes in the UK. Their effectiveness is underlined by evidence from the Business Angel Investment Activity Report published by BIS (Mason and Harrison, 2010). This showed that business angel networks that provided investment readiness programmes put a lower proportion of the businesses that approached them forward to their investors, but a higher proportion of these businesses were

successful in raising finance. However, there are criticisms of many of the investment programmes that have been created (Mason and Kwok, 2010; Mason and Harrison, 2001). For example, their emphasis has too often been on addressing presentational failings rather than the more fundamental - and much harder to address - investability issues. At their worst, they have been little more than an exercise in how to write a business plan. Very often there has been no follow-up of the businesses to see whether they have implemented the suggestions from the programme or whether they need support in doing so. Moreover, some are criticised for being delivered by government sponsored-employed business advisers rather than by hands-on investors. Effective investment readiness programmes need to be able to put entrepreneurs in front of both investors and individuals who have successfully raised finance and grown businesses. Finally, investment readiness programmes are targeted at companies raising their first round of finance, typically from business angels. However, their content is unlikely to be relevant for companies that are seeking to raise £1m plus from venture capital funds. Thus, there is a need for well-designed and resourced investment readiness programmes. These should focus on more than just the initial funding stage and cover follow-on funding rounds and also a stock market listing.

Building to sell

Central to the venture capital investment model of business angels and venture capital firms (including GSVCFs) is the requirement to achieve an exit to realise financial returns for investors. A financial support system that is based on a venture capital model will therefore be investing in businesses with growth potential that will ultimately be sold to larger companies. Only a small number of angel and venture capital exits occur by means of a flotation on the stock market (a so-called IPO). Indeed, over time venture capital firms have become much less attracted to taking their companies to an IPO (Chaplinasky and Gupta-Mulerjee, 2013; Bessler and Seim, 2014). Hence, whereas in the short term initiatives to increase the supply of venture capital should result in an increase in the number of young, growing businesses, in the longer term those businesses that offer the greatest prospects of commercial success are likely to be sold (often to overcome funding constraints), perpetuating the high level of external ownership of the region's businesses. Although the empirical evidence is patchy, there is a strong case for arguing that the external acquisition of young growing companies can have an adverse effect on regional economic development in the longer term (Foreman-Peck and Nicholls, 2013; Xiao, 2015). This is particularly the case for small, young companies whose main assets are in the form of intellectual

property, and are not embedded in the regional economy: both characteristics means that they could easily be uprooted and moved elsewhere. Moreover, small exits are unlikely to generate significant wealth for shareholders and investors, thereby limiting the potential for entrepreneurial recycling (Mason and Harrison, 2006).

Indeed, if a key objective is to support high growth companies it is surprising that more attention is not given to helping such firms to gain access to the IPO market. A listing of a business on a public stock market - undertaken through an Initial Public Offering (IPO) - is regarded as an important launch pad for further business growth and expansion to create regional 'anchor' businesses. An IPO provides access to further finance, acquisitions can be made using shares, the governance requirements and disciplines required of a publicly-listed company are seen as beneficial and the positive signals from being listed may open up new market opportunities. Meanwhile external investors are able to achieve liquidity and recycle capital gains in other businesses. A recent US study (Kenny et al., 2012) found that 'entrepreneurial growth companies' that had IPOs between 2001 and 2010 increased their employment by an average of 45%, or 822 jobs per firm, after their IPO. However, the Alternative Investment Market (AIM), which was created by the London Stock Market in 1995 as a public market for smaller growing companies, offering greater regulatory flexibility and no set requirements for capitalisation or the number of shares issued compared with the main market, is characterised by a geographical bias. AIM listed companies in the UK are heavily skewed to London and the South East, accounting for around 60%, whereas all other regions have lower proportions than their share of GVA (Amini et al., 2012). Wales accounts for just 1.7% of all IPOs on AIM from the market's creation in 1995 to 2008. From a regional economic development perspective the lack of publicly-listed companies has to be regarded as representing a source of economic weakness and is a contributory factor to the persistence of the 'north-south' economic divide in the UK.

One possible explanation is that peripheral regions do not produce sufficient HGFs that meet AIM listing requirements. Certainly, the proportion of HGFs in all of the UK regions is much lower than in Greater London (Mason et al., 2015), the proportion of companies in peripheral regions that feature in 'fast growth' lists such as the Virgin Fast Track is also less than its 'expected' share. Alternatively, potential AIM companies in the region may get acquired before they reach the point when they can consider an IPO. Understanding why there is a deficiency of publicly-listed companies in peripheral regions and seeking to overcome

whatever obstacles are discovered should be a policy priority. Of course, public companies are not immune from acquisition but because such companies are relatively large and well embedded in their region, they are more likely to prosper under new ownership should they be acquired. Moreover, this risk is mitigated by the fact that they are in a better position as a result of their public listing to make acquisitions themselves as a means of expanding, particularly internationally.

Entrepreneurial Ecosystems

Businesses do not evolve in a vacuum. Rather, they are embedded in a geographical context which provides them with various resources necessary for their start-up and growth. However, the quality of this environment varies. Hence, whereas high growth firms can be found in all types of location (Vaessen and Keeble, 1996), they are concentrated in certain distinctive environments – entrepreneurial ecosystems (Mason and Brown, 2014) – that offer the supportive culture and specialist resources (e.g. human capital, markets, information and knowledge) that such firms require. Eliasson (1996) uses the concept of ‘competence blocs’, defined as “the total infrastructure needed to create (innovation), select (entrepreneurship), recognise (venture capital provision), diffuse (spillovers) and commercially exploit (receiver competence) new ideas in clusters of firms.” But in practice most competence blocs are not complete. Where competence blocs are incomplete the whole incentive chain and structure fails to develop making it much harder for the earlier stage innovators and entrepreneurial startups to enter the markets (Eliasson & Eliasson 2009). GSVCFs – even though they are attempting to fill a missing component are therefore unlikely to be effective in geographical environments if, as is likely, other parts of the competence block are also missing.

Conclusion

The paper has argued that the GSVCFs in peripheral regions are likely to be largely ineffective in stimulating the emergence of high growth firms, at least without significant complementary initiatives to promote entrepreneurial activity. Peripheral regions simply lack the absorptive capacity to productively invest significant additional venture capital. There are not sufficient entrepreneurial businesses with the potential to grow. Moreover, a key element of risk capital is that it needs to be smart money and it is questionable whether GSVCFs have the ability to add significant value to their investee companies. New funding sources are appropriate in only a small number of situations, notably co-investment schemes alongside business angel groups and larger funds (>£1m) so as to widen the supply pyramid. There is also a need to rethink the investment focus, eligibility criteria and structure of such funds.

Governments should target their efforts on enabling the private sector to invest more effectively. These efforts should be focused in particular on expanding business angel investment activity in the regions. Angel networks have been effective in the past at enabling investments to occur but lacked long term finance support and so have closed. Promoting managed business angel groups has also been demonstrated to be an effective approach to expanding business angel investment activity. By investing together angel groups are able to make larger investments and follow-on investments, thereby filling some of the gaps created by the decline in venture capital investing. Angel groups are also attractive to high net worth individuals who would not otherwise become business angels, hence they have a positive impact on the supply of finance. Indeed, in peripheral regions where the number of business angels is likely to be limited, connecting ‘smart’ investors with ‘dumb’ money through angel syndicates is an effective way of using this valuable but scarce resource (as has occurred in Scotland, see Mason et al., 2013). Angel syndicates are also essential

partners in co-investment schemes. There should also be support for capacity building in the form of investor training and investment readiness schemes. A further area of intervention is to enhance the connectivity of the region’s entrepreneurial eco-system to external investors by developing networks – or pipelines – to bring in out-of-region investors to make Series B and Series C funding rounds. This approach is increasingly being practiced by policy-makers in other peripheral regions (Mason and Baldock, 2015). There is the need to enhance the connectivity of the different stages of the market so that businesses that have raised, say, business angel funding, and which require additional funding can progress seamlessly to a venture capital funding round. Rather than simply repairing the funding elevator, which perpetuates the segmentation of the market, there is a requirement for a funding escalator that can finance growing businesses in a continuous rather than in a discontinuous way.

However, in the final analysis policy-makers in the regions have to assess the desirability of a risk-based financial system which requires investors to seek an exit, normally in the form of a trade sale involving the acquisition of the young business by an out-of-region, and often non-UK business. This does nothing to build locally-headquartered businesses; indeed, it perpetuates peripheral regions as ‘branch plant economies’, albeit with different characteristics compared to the inward investment era, but with adverse implications for the development of entrepreneurial labour markets in these regions. Rebuilding the funding escalator is essential to ensure that businesses are not sold prematurely, or as distress sales. Encouraging and enabling investors to grow some of their investee companies so that they become candidates for an IPO is also critical. The scope for using government sponsored funds to establish secondary markets which can buy-out some of the shares of existing shareholders to provide them with liquidity should also be investigated.

References

- Avdeitchikova, S. (2012). The Geographic Organization of ‘Venture Capital’ and ‘Business Angels’, in Landström, H and Mason, C (eds) *Handbook of Research on Venture Capital: Volume 2, A Globalizing Industry*, Cheltenham: Edward Elgar
- Amini, S., Keasey, K. and Hudson, R. (2012). The equity funding of smaller growing companies and regional stock exchanges, *International Small Business Journal*, 30: 832-849. <http://dx.doi.org/10.1177/0266242610382931>
- Anyadike-Danes, M., Bonner, K., Hart, M., & Mason, C. (2009). *Mapping Firm Growth in the UK: Identification of High Growth Firms and their Economic Impact*, London: NESTA. Download from: <http://www.erini.ac.uk/Publications/PDF/ERINIMon44.pdf>
- Bathelt, H., Malmberg, A. and Maskell, P. (2004). Clusters and knowledge, local buzz, global pipelines and the process of knowledge creation, *Progress in Human Geography*, 28 (1), 31-56. <http://dx.doi.org/10.1191/0309132504ph469oa>
- Bessler, W. and Seim, M. (2012). The performance of venture capital backed IPOs, *Venture Capital: an international journal of entrepreneurial finance*, 14 (4) 215-239,
- BIS (2012). *SME Access to External Finance*. BIS Economics Paper No. 16. London: Department for Business, Innovation and Skills.

- Brander, J., Du, Q. and Hellman, T. (2014). The effects of government sponsored venture capital: international evidence, *Journal of Finance*. <http://dx.doi.org/10.1093/rof/rfu009>
- Brown, R. and Mason, C., (2014). High-Tech Black Box: A Critique of Technology Entrepreneurship Policy, *Technovation*, 34 (12) 773-784. <http://dx.doi.org/10.1016/j.technovation.2014.07.013>
- Centre for Cities (2015). *Cities Outlook 2015*. Available at: <http://www.centreforcities.org/wp-content/uploads/2015/01/15-01-09-Cities-Outlook-2015.pdf>
- Champion, T., Townsend, A. (2013). Great Britain's second-order city regions in recessions, *Environment and Planning A*, 45: 362–382. <http://dx.doi.org/10.1068/a45100>
- Chaplinsky, J. and Gupta-Mukerjee, S. (2013). The decline in venture capital-backed IPOs: implications for capital recovery. In M Levis and S Vismara (eds) *Handbook of Academic Research on IPOs*, Edward Elgar, Cheltenham, pp 35-56.
- Daunfeldt, S. O., Elert, N. and Johansson, D. (2015). Are High-Growth Firms Overrepresented in High-Tech Industries? IFN Working Paper No. 1062. Available at SSRN: <http://ssrn.com/abstract=2585895>
- Eliasson, G. (1996). *Firm Objectives, Controls and Organization—The Use of Information and the Transfer of Knowledge within the Firm*. Boston/Dordrecht/London: Kluwer Academic.
- Eliasson, G. & Eliasson, Å. (2009). Competence and learning in the experimentally organized economy. In Bjuggren, P-O. and Mueller, D.C. (Eds), *The Modern Firm, Corporate Governance and Investment*. Edward Elgar: Cheltenham, UK and Northampton, MA, USA
- Forbes (2013). 5 reasons the government fails at venture capital, 19 February
- Financial Times (2015). UK's north-south divide widens, 9 December. Available at: <http://www.ft.com/cms/s/0/aa01fe3e-9e5f-11e5-8ce1-f6219b685d74.html#axzz3xpMEVB7h>
- Foreman-Peck, J. and Nicholls, T. (2013). SME takeovers as a contribution to regional productivity differentials, *Small Business Economics*, 41, 359-378. <http://dx.doi.org/10.1007/s11187-012-9444-x>
- Grilli, L., & Murtinu, S. (2014). Government, venture capital and the growth of European high-tech entrepreneurial firms. *Research Policy*, 43(9), 1523-1543. <http://dx.doi.org/10.1016/j.respol.2014.04.002>
- Harrison, R. T., Mason, C. M. and Robson, P. J. A., (2010). Determinants of long-distance investing by business angels in the UK, *Entrepreneurship and Regional Development*, 22 (2) 113-137. <http://dx.doi.org/10.1080/08985620802545928>
- Hart, M., Anyadike-Danes, M. (2014). Moving on From the Vital 6%. Enterprise Research Centre, ERC Insight, February 2014. Available at: http://enterpriseresearch.ac.uk/wp-content/uploads/2014/02/ERC-Insight-No_3.pdf.
- Henrekson, M. & Johansson, D. (2010). Gazelles as job creators: a survey and interpretation of the evidence, *Small Business Economics*, 35(2), 227-244.
- Kenney, M., Patton, D. and Ritter, J. R. (2012). *Post IPO Employment and Revenue Growth for US IPOs: June 1996-2010*. Kauffman Foundation: Kansas City.
- Lerner, J. (2009). *Boulevard of Broken Dreams: why public efforts to boost entrepreneurship and venture capital have failed*. Princeton University Press: Princeton: NJ.
- Luukkonen, T., Deschryvere, M. and Bertoni, F. (2013). The value added by government venture capital funds compared with independent venture capital funds, *Technovation*, <http://dx.doi.org/10.1016/j.technovation.2012.11.007>
- Mason, C. M. (2007). Venture capital: a geographical perspective. In H Landström (ed) *Handbook of Research on Venture Capital*, Edward Elgar, Cheltenham, pp 86-112.
- Mason, C. M. (2009) Venture capital in crisis? *Venture Capital: an international journal of entrepreneurial finance*, 11 (4), 279-285.
- Mason, C. M. and Baldock, R. (2015). Developing Lerner's Globalisation of Venture Capital Thesis: How Are Small, Peripheral Economies Seeking to Establish Sustainable Venture Capital Ecosystems? Paper to the ISBE conference, Glasgow, November.
- Mason, C. M. and Brown, R. (2013). Creating good public policy to support high growth firms, *Small Business Economics*, 40 (2), 211-225. <http://dx.doi.org/10.1007/s11187-011-9369-9>
- Mason, C. M. and Brown, R. (2014). *Entrepreneurial Ecosystems and Growth-Oriented Enterprises*. OECD LEED programme. <http://www.oecd.org/cfe/leed/entrepreneurial-ecosystems.pdf>
- Mason, C. M. and Harrison, R. T. (2001). Investment readiness: a critique of government proposals to increase the demand for venture capital, *Regional Studies*, 35, 663-668. <http://dx.doi.org/10.1080/00343400120075939>
- Mason, C. M. and Harrison, R. T. (2006). After the exit: acquisitions, entrepreneurial recycling and regional economic development, *Regional Studies*. 40, 55-73. <http://dx.doi.org/10.1080/00343400500450059>
- Mason, C. M. and Harrison, R. T. (2010). *Annual Report on the Business Angel Market in the United Kingdom: 2008/09*, Department of Business, Innovation and Skills, 88pp.

- Mason, C. M. and Kwok, J. (2010). Investment readiness programmes and access to finance: a critical review of design issues, *Local Economy*, 25 (4) 269-292. <http://dx.doi.org/10.1080/02690942.2010.504570>
- Mason, C. M. and Pierrakis, Y. (2013). Venture capital, the regions and public policy: the United Kingdom since the post-2000 technology crash, *Regional Studies*, 47 (5), 1156-1171 <http://dx.doi.org/10.1080/00343404.2011.588203>
- Mason, C., Brown, R., Hart, M. and Anyadike-Danes, M. (2015). High growth firms, jobs and peripheral regions: the case of Scotland, *Cambridge Journal of Regions, Economy and Society*, 8 (2) 343-358.
- Mason, C. M., Botelho, T. and Harrison, R. (2013). The Transformation of the Business Angel Market: Evidence from Scotland. Working Paper, Adam Smith Business School, University of Glasgow.
- Munari, F. and Toshi, L. (2015). Assessing the impact of public venture capital programmes in the United Kingdom: Do regional characteristics matter? *Journal of Business Venturing* 30 (2), 205-226. <http://dx.doi.org/10.1016/j.jbusvent.2014.07.009>
- Nightingale, P. Murray, G., Cowling, M., Baden-Fuller, C., Mason, C., Siepel, J and Dannreuther, C. (2009). From Funding Gaps to Thin Markets: Designing Hybrid VC Schemes for the 21st century, SPRU, University of Sussex for BVCA and NESTA.
- OECD (2011). The Financing of High Growth Firms: the role of angel investors. OECD: Paris
- Schäfer, D. and Schilder, D. (2009). Smart capital in German start-ups: an empirical analysis, *Venture Capital: an international journal of entrepreneurial finance*, 11 (2) 163-183.
- Shane, S. (2008). *The Illusions of Entrepreneurship*. New Haven: Yale University Press
- Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, 33(2), 141-149. <http://dx.doi.org/10.1007/s11187-009-9215-5>
- SQW Consulting (2009). The Supply of Equity Finance to SMEs: Revisiting the 'Equity Gap', Report to the Department of Business, Enterprise and Regulatory Reform and Department for Innovation, University and Skills.
- Storey, D. J., Greene, F. (2010). *Small Business and Entrepreneurship*. Harlow, UK: Prentice Hall.
- Townsend, A., Champion T. (2014). The impact of recession on city regions: the British experience, 2008-2013, *Local Economy*, 29: 38-51. <http://dx.doi.org/10.1177/0269094213518885>
- Vaessen, P. and Keeble, D. (1996). Growth-oriented SMEs in unfavourable regional environments, *Regional Studies*, 29 (6), 489-505. <http://dx.doi.org/10.1080/00343409512331349133>
- Xiao, J. (2015). The effects of acquisition on the growth of new technology based firms: do different types of acquirer matter? *Small Business Economics*, DOI. 10.1007/5/1887-015-9656-y <http://dx.doi.org/10.1007/5/1887-015-9656-y>